The New U.S. Nuclear Strategy is Flawed and Dangerous. Here’s Why.

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In December 2016, President Donald Trump tweeted that the United States “must greatly strengthen and expand its nuclear capability” and later told MSNBC that he would “look at” adding new nuclear weapons to the U.S. arsenal. These pronouncements raised concerns among national security experts, as well as the United States and around the world and raised concerns about the direction the president would take U.S. nuclear weapons policy.

Those concerns, it turns out, were well justified.

The Defense Department released Feb. 2 a new Nuclear Posture Review (NPR), the fourth since the end of the Cold War. The NPR is a strategy document that outlines the role of nuclear weapons in U.S. strategy, the plans for maintaining and upgrading nuclear forces, and the overall U.S. approach to nuclear arms control and nonproliferation.

Though there are, not surprisingly, elements of continuity with previous reviews, the proposed changes in the new NPR are significant and align with Trump’s more aggressive and impulsive nuclear notions. The document incorporates wish list items long-advocated by parts of the nuclear weapons establishment and breaks with past U.S. efforts to reduce the role and number of nuclear weapons worldwide in several key areas.

It is true that the international security environment is less favorable than it was in 2010 when the
Obama administration conducted its NPR. Some of the other nuclear-armed states have not been responsible nuclear citizens. Technology is advancing in new and unpredictable ways. And the existing U.S. nuclear arsenal—originally built during the Cold War-era and refurbished since—is aging.

But these developments do not justify the approach advanced in this NPR.

The review proposes to expand the circumstances under which Trump might consider the use of nuclear weapons, including in response to so-called “non-nuclear strategic threats” and calls for the development of new, more usable nuclear weapons capabilities.

The review also walks back from the longstanding U.S. leadership role on arms control and nonproliferation at a time when the global nuclear weapons risk reduction enterprise is facing significant challenges.

Taken together, these and other changes in the Trump Nuclear Posture Review rest on faulty assumptions, are unnecessary and unlikely to achieve their stated goal, set the stage for an even more unsustainable rate of spending on U.S. nuclear weapons, would accelerate global nuclear competition, and could increase the risk of nuclear conflict in the years ahead.

**Wider Range of Nuclear Use Options**

Instead of deemphasizing the role of nuclear weapons in U.S. policy as previous NPRs have done, the Trump NPR envisions a greater role for the weapons against a wider range of threats. Trump administration officials claim that their NPR is consistent with the 2010 Obama NPR on declaratory policy. Both in tone and substance, it is not.

The 2018 NPR says that the first use of nuclear weapons will only be considered under “extreme circumstances” to defend the “vital interests” of the United States and its allies (p. 21). The 2010 NPR used identical language. Unlike the previous administration, however, the Trump administration defines extreme circumstances more broadly to include “significant non-nuclear strategic attacks” against “U.S., allied or partner civilian population or infrastructure, and attacks on U.S. or allied nuclear forces, their command and control, or warning and attack assessment capabilities.”

The document does not explicitly define “significant non-nuclear strategic attacks” but at various points says it could include chemical and biological attacks, large-scale conventional aggression, and cyberattacks. The review references the role of nuclear weapons in deterring non-nuclear attacks over 30 times.

The 2010 NPR, on the other hand, described “a narrow range of contingencies” in which nuclear weapons may play a role in deterring “a conventional or CBW attack.” There was no reference to cyberattacks or attacks on nuclear command, control, and communications capabilities anywhere in the 2010 document.

“This opens questions,” writes former Pentagon official Rebecca Hersman, “about whether the United States would consider using” nuclear “weapons more readily than it might have in the past or in response to attacks that are less than fully catastrophic.”

In addition, the 2010 NPR stated that the United States “will continue to strengthen conventional capabilities and reduce the role of nuclear weapons in deterring non-nuclear attacks, with the objective of making deterrence of nuclear attack on the United States or our allies and partners the sole purpose of U.S. nuclear weapons.”

Indeed, by the end of his second term of office President Obama believed that goal had effectively been achieved. As then Vice President Joe Biden put it in remarks delivered in January 2017: “given our non-nuclear capabilities and the nature of today’s threats, it’s hard to envision a plausible scenario in which the first use of nuclear weapons by the United States would be necessary. Or make sense. President Obama and I are confident we can deter and defend ourselves and our allies against non-nuclear threats through other means.”
In contrast, the new NPR explicitly rejects the idea of “sole purpose” (p. 20). The review extols ambiguity and proposes two new low-yield nuclear capabilities to “expand the range of credible U.S. options for responding to nuclear or non-nuclear strategic attack” (p. 55).

The Trump NPR diverges from the Obama NPR on declaratory policy in still other ways.

The 2010 review updated and strengthened the U.S. pledge of nonuse against non-nuclear-weapon states that are in good standing with their nuclear nonproliferation obligations, even in the unlikely event that one of those states attacks the United States or its allies with chemical or biological weapons. This revised negative security assurance expanded the security benefits for non-nuclear-weapon states of good faith membership in the nuclear Nonproliferation Treaty (NPT) regime.

The 2018 NPR reiterates this pledge but undermines the value of this assurance by retaining “the right to make any adjustment in the assurance that may be warranted by the evolution and proliferation of non-nuclear strategic attack technologies and U.S. capabilities to counter that threat” (p. 21).

It is notable that President Trump argued in his 2018 State of the Union address that “we must modernize and rebuild our nuclear arsenal, hopefully never having to use it, but making it so strong and powerful that it will deter any acts of aggression by any other nation or anyone else.”

This approach represents a clear shift away from past U.S. strategy and practice that aims to reduce the role of nuclear weapons in U.S. military and foreign policy. The 2010 NPR stated that the “fundamental role” of nuclear weapons is to deter nuclear attack against the United States or its allies, not “any act of aggression.”

The proposed changes in the 2018 NPR on the role of nuclear weapons are real. And they are dangerous.

Threatening nuclear retaliation to counter new kinds of “asymmetric” attacks would lower the threshold for nuclear use, increase the risks of miscalculation, and make it easier for other countries to justify excessive roles for nuclear weapons in their policies. Such threats are also unlikely to be proportional and therefore would be difficult to make credible. For example, though a kinetic or nonkinetic attack on U.S. nuclear command and control capabilities, which support both nuclear and non-nuclear missions, could have major repercussions, such an attack is unlikely to result in any human casualties.

Given the overall conventional superiority of the U.S.-led alliance system, it is in the U.S. interest to raise, not lower, the bar for nuclear use. A more prudent approach to countering potential non-nuclear attacks on U.S. infrastructure and command and control capabilities would include strengthening the resilience of these systems against cyberattack and ensuring the availability of credible symmetric and asymmetric conventional response options.

New, “More Usable” Nuclear Weapons

The Trump NPR calls for the development of new low-yield nuclear capabilities, primarily to counter Russia’s alleged willingness to use nuclear weapons first on a limited basis early in a conventional conflict or crisis (also known as “escalate to deescalate”). The review warns that Russia maintains a much larger arsenal of "non-strategic" nuclear weapons than the United States and is upgrading those weapons.

To attempt to correct Russia's purported "mistaken impression" that its non-strategic forces could "provide a coercive advantage in crises or at lower levels of conflict," the review proposes to supplement the U.S. arsenal with the following capabilities:

- the near-term deployment of a new low-yield, W76-1 nuclear warhead variant for the D-5 submarine-launched ballistic missile (SLBM) and
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- the longer-term development of a new nuclear sea-launched cruise missile (SLCM).

To counter Russia’s violation of the 1987 Intermediate-Range Nuclear Forces (INF) Treaty, the review also seeks a new (for the time being conventional) ground-launched cruise missile (GLCM) that would, if tested and deployed, put the U.S. in violation of the treaty.

The shortcomings in the rationale for additional low-yield options are too numerous to count.

For starters, the claim that Russia has lowered the threshold for the first use of nuclear weapons is hotly disputed. While Russia appears to rely more heavily on nuclear weapons for its security than the United States due to its overall conventional inferiority and concerns about U.S. missile defenses, is violating the INF Treaty, and developing new types of nuclear weapons, Russia’s official nuclear doctrine does not support the claim that it has an “escalate to deescalate” doctrine. As Jeffrey Edmonds, a former director for Russia on the National Security Council, has written, “If the Russian leadership decides to use nuclear weapons in a limited way to gain escalation control, then it is likely doing so as a last measure, reacting from a perception that the Russian state is about to fall.”

In fact, what is far more likely to prompt Russian President Vladimir Putin to perceive that he could get away with limited nuclear use is past and future statements by President Trump questioning the value of NATO and U.S. alliances. Deploying additional low-yield nuclear options won’t solve this political problem.

In any event, the review fails to produce compelling evidence that Russia might believe the United States would be self-deterred from using the weapons in its current arsenal (conventional or nuclear) in response to a limited Russian nuclear attack. Speaking of the weapons in its current arsenal, Washington already possesses hundreds of low-yield warheads as part of the air-leg of the triad and plans to invest over $150 billion in the coming decades to ensure these warheads can penetrate the most advanced air defenses. New low-yield options are a solution in search of a problem.

The NPR argues that additional low-yield options are “not intended to enable” nuclear war-fighting “[n]or will it lower the nuclear threshold” (p. 54). But this assertion ignores the fact that the stated purpose is to make their use “more credible” in the eyes of U.S. adversaries, which means that they are meant to be seen as “more usable.”

The belief that a nuclear conflict could be controlled is dangerous thinking. The fog of war is thick, the fog of nuclear war would be even thicker. Such thinking could also have the perverse effect of convincing Russia that it could get away with limited nuclear use without putting its survival at risk.

Many military targets are in or near urban areas. It has been estimated that the use of even a fraction of U.S. and Russian nuclear forces could lead to the death of tens of millions of people in each country. An all-out exchange would kill hundreds of millions and produce catastrophic global consequences with adverse agricultural, economic, health, and environmental consequences for billions of people.

No country should be preparing to wage a “limited nuclear war” that neither side can guarantee would remain “limited.” Rather, as Presidents Ronald Reagan and Mikhail Gorbachev declared in 1985, today’s Russian and U.S. leaders should recognize that “a nuclear war can never be won and must never be fought.”

Even if one buys the rationale that more low-yield options are needed, the two new nuclear capabilities proposed by the review are deeply flawed.

Given that U.S. strategic submarines currently carry SLBMs armed with higher-yield warheads, how would Russia know that an incoming missile armed with a low-yield warhead wasn’t actually armed with high-yield warheads? The answer is it wouldn’t, thereby increasing the risks of unintended escalation.

Deploying nuclear SLCMs on U.S. surface ships and/or attack submarines also raises several concerns. The potential for miscalculation would increase since an adversary would be unable to
determine if an incoming missile is armed with a nuclear or conventional warhead. And the Navy is unlikely to be pleased with the additional operational and financial burdens that would come with nuclearizing the surface and/or attack submarine fleet.

The NPR claims that development of a new nuclear SLCM, which would take nearly decade, could serve as a bargaining chip in future arms control negotiations with Russia. The document states that if Moscow “returns to compliance with its arms control obligations, reduces its non-strategic nuclear arsenal, and corrects its other destabilizing behaviors, the United States may reconsider the pursuit of a SLCM” (p. 55). This requirement is so sweeping that it lacks any realistic negotiating value. It’s also not clear how additional nuclear options would be useful bargaining chips given Russia’s concerns about overall NATO conventional superiority.

Ultimately, attempting to mimic Russia by developing more low-yield options would play into Moscow’s hands, since it can match NATO in the nuclear sphere. The main deterrence challenge Russia poses to the alliance is not nuclear. That means the United States should continue to invest in maintaining its overall conventional edge, buttress defenses as needed on NATO’s eastern flank where Russia has local superiority, and more effectively defend against and respond to Russia's use of disinformation, propaganda, and cyber tools to undermine western democratic institutions. At the same time, it should seek opportunities to engage with Moscow to reduce tensions and the risk of renewed military competition.

Undermining the Taboo Against Nuclear Testing

The NPR asserts that “the United States does not support the ratification of the [Comprehensive Test Ban Treaty] CTBT” (p. 63) even though the United States and 182 other nations have signed the treaty, and even though there is no technical need to resume nuclear testing. No reason or justification for rejecting the goal of CTBT ratification is provided.

The review says that “the United States will continue to support the Comprehensive Nuclear Test Ban Treaty Preparatory Committee” and “the related International Monitoring System and the International Data Center.” It also calls upon other states not to conduct nuclear testing and states that “[t]he United States will not resume nuclear explosive testing unless necessary to ensure the safety and effectiveness of the U.S. arsenal.”

But the NPR proclaims that the United States will remain ready to “resume nuclear testing if necessary to meet severe technological or geopolitical challenges.”

The NPR also seeks “to reduce the time required to design, develop, and initially produce a warhead, from a decision to enter full-scale development.” An annual National Nuclear Security Administration (NNSA) report released in November 2017 shortens the previous readiness timeline to conduct a “simple [nuclear] test” explosion from 24 to 36 months down to six to 10 months, undermining the global nuclear testing taboo. This shortened timeline means that should the United States decide to conduct a “simple test” explosion, it should be prepared to do so within six to 10 months.

While the NNSA report and the NPR both reaffirm that “there is no current requirement to conduct an underground nuclear test,” the administration’s hasty rejection of CTBT ratification, combined with the NNSA’s revised testing readiness timeline suggests the Trump administration only wants to reap the benefits of the treaty, including the data from the monitoring system, while leaving the door open to resuming nuclear testing.

A Nuclear Force That is Excessive and Unsustainable

The Trump NPR’s proposals to develop new nuclear capabilities come on top of the existing nuclear triad recapitalization program of record that the Trump administration inherited from its predecessor. The Congressional Budget Office (CBO) projects that the Obama-era plans would cost over $1.2 trillion (excluding the impact of inflation) over the next 30 years.

Massive spending on nuclear weapons on the scale and schedule envisioned by the 2018 NPR will pose a major threat to other high priority national security programs, to say nothing about Trump’s
pledge to expand the non-nuclear military. What makes the growing cost to sustain the nuclear mission so worrisome for military planners is that costs are scheduled to reach a peak during the mid-2020s and overlap with large increases in projected spending on conventional weapon system modernization programs. Though the recent budget deal agreed to in Congress has improved the near-term outlook for defense spending, the Pentagon is likely to face continuing budget pressure in the future.

The NPR acknowledges that the upgrade costs are “substantial” but attempts to downplay them by claiming that nuclear weapons will “only” consume more than 6.4 percent of the defense budget (p. 52). This projection does not include the major costs that must be borne by NNSA to upgrade nuclear warheads and their supporting infrastructure.

The review offers no plan to pay for the rising price tag to upgrade the triad and the coming bow wave of non-nuclear modernization costs. It also fails to examine more pragmatic, cost-effective alternatives.

The force outlined in the NPR calls for maintaining and upgrading U.S. nuclear forces at levels that exceed the deterrence requirements outlined by the Pentagon in 2013, which determined that the deployed strategic arsenal could be reduced by up to one-third below the limits set by the 2010 New Strategic Arms Reduction Treaty (New START) of 1,550 warheads and 700 delivery systems. Even if the United States maintains its arsenal at the New START levels, it can do so at a significantly lower cost, according to the CBO.

Planning for an Arms Race

President Trump said Feb. 12 that the United States is “creating a brand new nuclear force...[W]e’re gonna be so far ahead of everybody else in nuclear like you’ve never seen before.” The NPR comports with the president’s stated objective by laying the groundwork to provide “capabilities needed to quickly produce new or additional weapons” beyond the 4,000 warheads currently in the active U.S. nuclear stockpile (pgs. 59-64).

One measure of the scale of the plan for building “new or additional weapons” is given in the commitment to “[p]rovide the enduring capability and capacity to produce plutonium pits [nuclear warhead cores] at a rate of no fewer than 80 pits per year by 2030” (p. 62). No basis is offered for this minimum capacity target.

The NPR also calls for options to expand the arsenal by using old warheads, including “modifying warheads,” assessing “the potential for retired warheads and components to augment the future hedge stockpile,” and reducing “the time required to design, develop, and initially produce a warhead, from a decision to enter full-scale development” (p. 63).

In addition, the review proposes to accelerate the life extension programs for the W78 intercontinental ballistic missile (ICBM) and W80-1 air-launched cruise missile (ALCM) warheads. It leaves open the option of whether to pursue Obama-era plans to develop common, interoperable warheads for ICBMs and SLBMs. The new NPR also appears to want to keep indefinitely the B83-1 warhead (the only remaining U.S. megaton-class warhead). The previous plan had been to retire it once confidence in the B61-12 had been achieved, if not sooner. In 2013 NNSA estimated that the cost to life extend the B83 would be $4 to $5 billion.

The NPR says that the Pentagon will undertake research and development “for advanced nuclear delivery system technology and prototyping capabilities,” including “on the rapid development of nuclear delivery systems, alternative basing modes, and capabilities for defeating advanced air and missile defenses” (p. 40). This sweeping language suggests the possible pursuit of research and development on mobile ICBMs and hypersonic missiles for nuclear weapons delivery.

These buildup plans go far beyond those proposed by the Obama administration, which married its proposal to develop a more responsive nuclear infrastructure with pledges to reduce the size of the stockpile of nondeployed hedge warheads and accelerate the rate of dismantlement of retired warheads. The Trump NPR does not reiterate these commitments.
The NPR gives short shrift to the additional financial and operational demands preparing for an arms race will put on an already overburdened NNSA. Though NNSA would receive a significant budget increase in the Trump administration’s fiscal year 2019 budget request, such a buildup is unlikely to be executable.

According to the U.S. Government Accountability Office report issued last year, the “NNSA’s plans to modernize its nuclear weapons do not align with its budget, raising affordability concerns.” And former NNSA administrator Frank Klotz said in a Jan. 23 interview just two days after leaving office that the agency is “working pretty much at full capacity... And you can draw your conclusion [on the Trump NPR proposals] from that.”

Nevertheless, the NPR makes an open-ended commitment to unleashing a nuclear weapon buildup whenever the U.S. sees fit. It is a clear incitement to other weapon states to do the same, and a clear violation of the NPT obligation to end the arms race and pursue effective disarmament measures.

**Undermines U.S. Arms Control and Nonproliferation Leadership**

In his January 2018 State of the Union address, Trump dismissed the idea of the elimination of nuclear weapons — a goal embraced by American President’s since the beginning of the nuclear age— as some “magical moment in the distant future.”

President Trump added Feb. 12: “Frankly I’d like to get rid of a lot of ‘em [nuclear weapons]. And if they [other nuclear-armed states] want to do that we’ll go along with them. We won’t lead the way, we’ll go along with them.”

Not surprisingly, the new Trump NPR does not proactively seek negotiations to limit nuclear arms.

Arms control only gets a brief mention at the end of the NPR and it’s a generally dismissive mention at that. The document passively states that “the United States will remain receptive to future arms control negotiations if conditions permit” and negotiations that “advance U.S. and allied security, are verifiable, and enforceable.” No previous nuclear arms control agreement has included enforcement measures.

In contrast, a major and important theme throughout the 2010 NPR was that “by reducing the role and numbers of U.S. nuclear weapons...we can put ourselves in a much better position to persuade our NPT [nuclear Nonproliferation Treaty] partners to join with us in adopting the measures needed to reinvigorate the nonproliferation regime and secure nuclear materials worldwide.”

The 2018 NPR does state that the “United States will continue efforts to create a more cooperative and benign security environment” (p. 24) and that “the United States will continue to pursue the political and security conditions that could enable further nuclear reductions” (p. 95).

But the review offers next to nothing in the way of proposals to advance particularly U.S.-Russian arms control efforts and address the growing challenges to strategic stability more broadly. As Michele Flournoy, former Undersecretary of Defense for Policy, put in a Jan. 18 interview:

“One of the things that’s missing in this NPR is a focus on nuclear diplomacy. How are we going to get to our goals of reducing the dangers, reducing arsenals, reducing the role of nuclear weapons, what’s the strategy there? There’s virtually no discussion of the arms control component of U.S. nuclear policy in this document.”

“The NPR essentially abandons the United States' leadership role in nonproliferation and arms control that have marked every president since Dwight Eisenhower,” noted Tom Countryman, former Assistant Secretary of State for Nonproliferation, in a Jan. 23 Arms Control Association briefing on the NPR.

On the one bilateral strategic nuclear arms reduction treaty that is currently in force—New START—the NPR does not commit its possible extension, despite the obvious benefits.
New START has improved strategic stability, predictability, and transparency, and verifiably trimmed the still oversized U.S. and Russian nuclear arsenals. At a time when U.S.-Russian relations remain strained, New START, which is set to expire in 2021, serves an even more important role in reducing nuclear risks.

The next step should be for Presidents Trump and Putin to agree to extend the treaty for another five years—until 2026. If New START is allowed to lapse in 2021 with nothing to replace it, there would be no limits on U.S. and Russian strategic nuclear forces for the first time since 1972. The United States would have fewer tools with which to verify the size and composition of the Russian nuclear stockpile.

**Flawed Assumptions**

Several of the arguments offered in the NPR for expanding the diversity and role of nuclear weapons in U.S. policy are highly misleading.

- The Trump plan is centered on the **mistaken belief that the United States is falling behind other countries in the fielding of a reliable and credible nuclear arsenal** and it claims that there are gaps in our ability to “credibly” threaten to wage nuclear war. In reality, there is no “nuclear missile gap.” The United States is not falling “behind.” The U.S. arsenal is the most potent in the world and is more than intimidating enough to deter nuclear attack by others—and if ever used—kill hundreds of millions of people.

- The Trump nuclear plan **falsely suggests that U.S. leadership on nuclear disarmament has not contributed to nonproliferation efforts or enhanced U.S. global standing**. In reality, the commitment of the nuclear-armed states to halt the arms race and achieve nuclear disarmament established in the NPT has been crucial to preventing proliferation and was essential to the non-nuclear weapon states decision extend the NPT indefinitely in 1995.

- The Trump nuclear plan argues that the new Treaty on the Prohibition of Nuclear Weapons has been “polarizing” and “could damage the nuclear nonproliferation regime.” **In reality, it is nuclear weapons, and U.S. threats of “fire and fury,” that are dangerous and divisive. This more aggressive U.S. nuclear posture gives other nuclear actors a cynical excuse to justify their ongoing nuclear upgrade efforts and build up their own nuclear capabilities.** The “Nuclear Ban Treaty,” on the other hand, is a good faith effort by more than 130 states to meet their responsibility as signatories of NPT to help end the arms race. Steps, like the Ban Treaty, aimed at reducing the risk of catastrophic nuclear weapons use are necessary and should be welcomed.

**Bottom Line**

Despite elements of continuity with previous administrations, the Trump NPR is not a status quo document.

Rather than develop new nuclear roles and capabilities and put additional strain on an already wobbly global nuclear order, the United States needs to show more responsible nuclear leadership.

It will be up to Congress, U.S. allies, the international community, and ultimately the U.S. public to ensure that Trump’s radical nuclear plans do not become the tipping point toward a new and more dangerous nuclear era.—**DARYL G. KIMBALL, executive director, and KINGSTON A. REIF, director for disarmament and threat reduction policy**

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